



**I don't want to talk about 2019...but we have to**

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**1/21/2020**



# Eastern North Dakota Issues – 2019

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- Prevent Plant
- Enlist One Mixing Issues
- Waterhemp



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# PP Weed Issues in 2019

- Waterhemp and horseweed (maretail) prevalent in many PP fields
- Many fields not touched until late July
  - Waterhemp already setting seed
- Palmer amaranth popping up in millet fields
- Fall moisture increased germination of winter annuals (including horseweed)



# How to Avoid 2019 PP Issues

- Attempt weed control as soon as insurance allows
- Cover crops to help suppress summer annual weeds
  - Generally too late for winter annuals unless cereal rye is established
- High likelihood of PP in 2020 = higher risk of contaminated cover crops



# Weed Control in PP

- Try to keep things cheap
  - Residuals may not pay if no cover is established
  - Gramoxone, 2,4-D, dicamba, glyphosate good program bases
    - Be aware of OTM for later applications
- Use group 4 herbicides in grass cover crops
- Use group 1 herbicides in broadleaf cover crops



# Gramoxone During Inversion





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50 mL H<sub>2</sub>O  
18.65 Indistm  
18.65 RU PM

50 mL H<sub>2</sub>O  
18.65 Enistm  
18.65 D. Rango

200 mL H<sub>2</sub>O  
18.65 mL Enist  
18.65 mL RU PM

200 mL H<sub>2</sub>O  
18.65 mL Enist  
18.65 D. Rango

1,081.7 mL  
18.65 mL Enist  
18.65 mL RU PM

1,081.7 mL  
18.65 mL Enist  
18.65 mL RU PM

# ENLIST<sup>™</sup> HERBICIDES TANK-MIX SEQUENCE PROCEDURES

Be sure to start with a clean sprayer before mixing a load with Enlist herbicides. Remember the required water carrier volume with Enlist herbicides is 10–15 gallons per acre. For more tips on sprayer setup, see the Enlist herbicides application guide.

## LIQUID CARRIER

- Begin with half-full tank of water
- Begin agitation and continue throughout mixing process
- Add products in order:
  1. AMS / water conditioning agents
  2. Pre-slurry water-soluble packets
  3. Wettable powders/dry flowables
  4. Compatibility agents
  5. Liquid flowables
  6. Capsule suspension (CS) or suspension emulsion (SE)
  7. Emulsifiable concentrate (EC)
    - Soluble liquids (SL)
    - Enlist Duo<sup>®</sup> herbicide at 4.75 pt/A
    - Enlist One<sup>™</sup> herbicide at 2.0 pt/A – **When mixing with Enlist One, do not pour glufosinate ammonium products or glyphosate potassium into the tank at the same time as Enlist One. Add products one at a time, allowing enough time for recirculation between additions of each separate product.**
    - Glyphosate products
  8. Crop Oil Concentrate (COC), NIS, other adjuvants
  9. Top off with water carrier



# Avoid mixing mistakes with Enlist One



Photo credits: Jonathan Siebert

# Avoiding the gunk up during mixing

To successfully tank mix  
Enlist One + glyphosate:

- Plenty of water
- Plenty of time to agitate
- Mix products one at a time in proper mixing order



10 gal carrier volume

Enlist One @ 2 pt/A

PowerMax @ 22 oz/A

Brawl @ 1 pt/A

Products dumped into inductor at same time;  
less than a 25% full of water

Photo credit: Steve Snyder

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# USDA sets web seminar session for hemp

March 5, 2019 11:27 AM

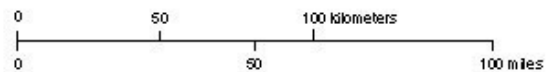
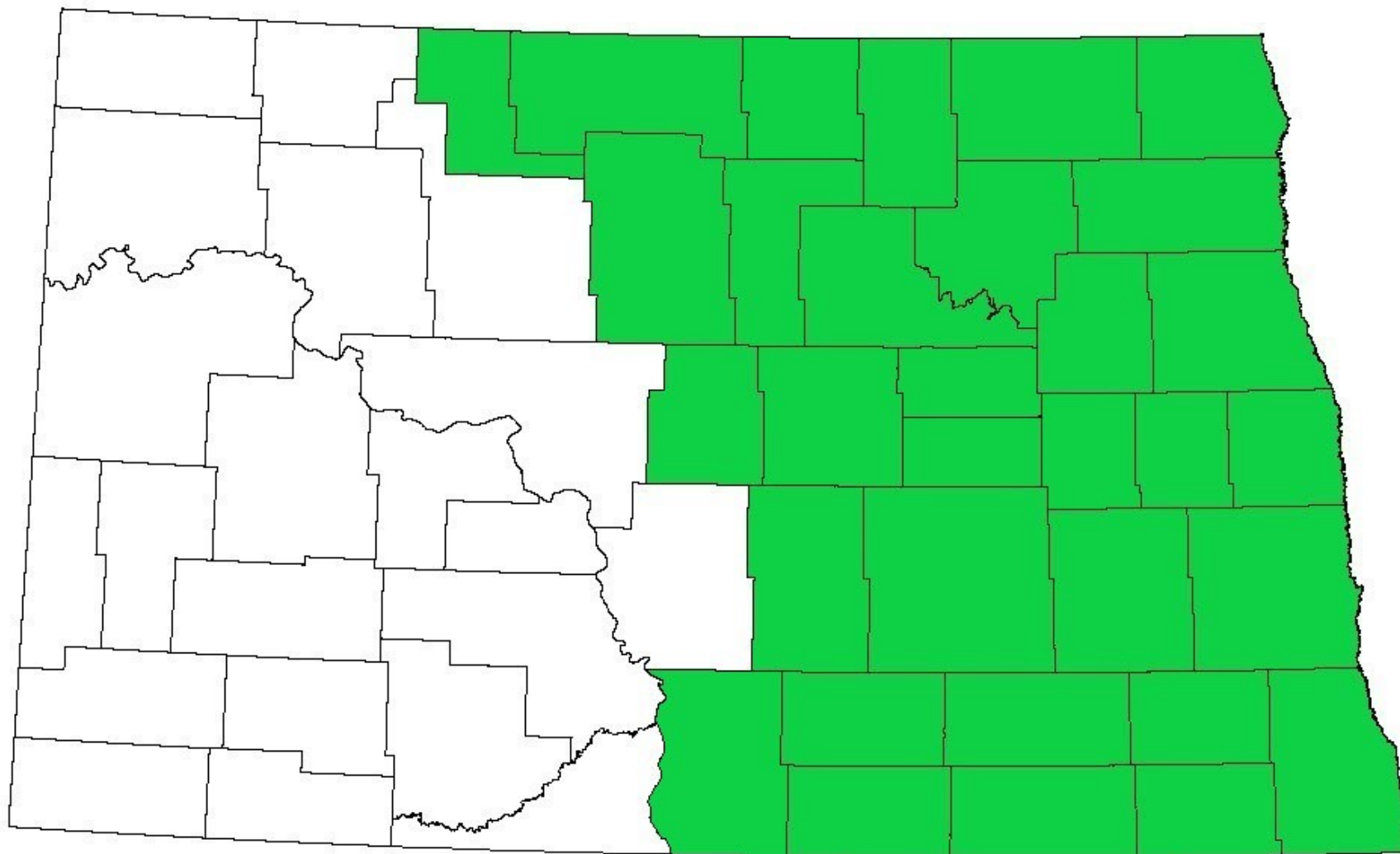


( File photo )

March 13 is the date for a U.S. Department of Agriculture web listening session that will help the agency gather public comments about a new program to regulate hemp production.



# NORTH DAKOTA

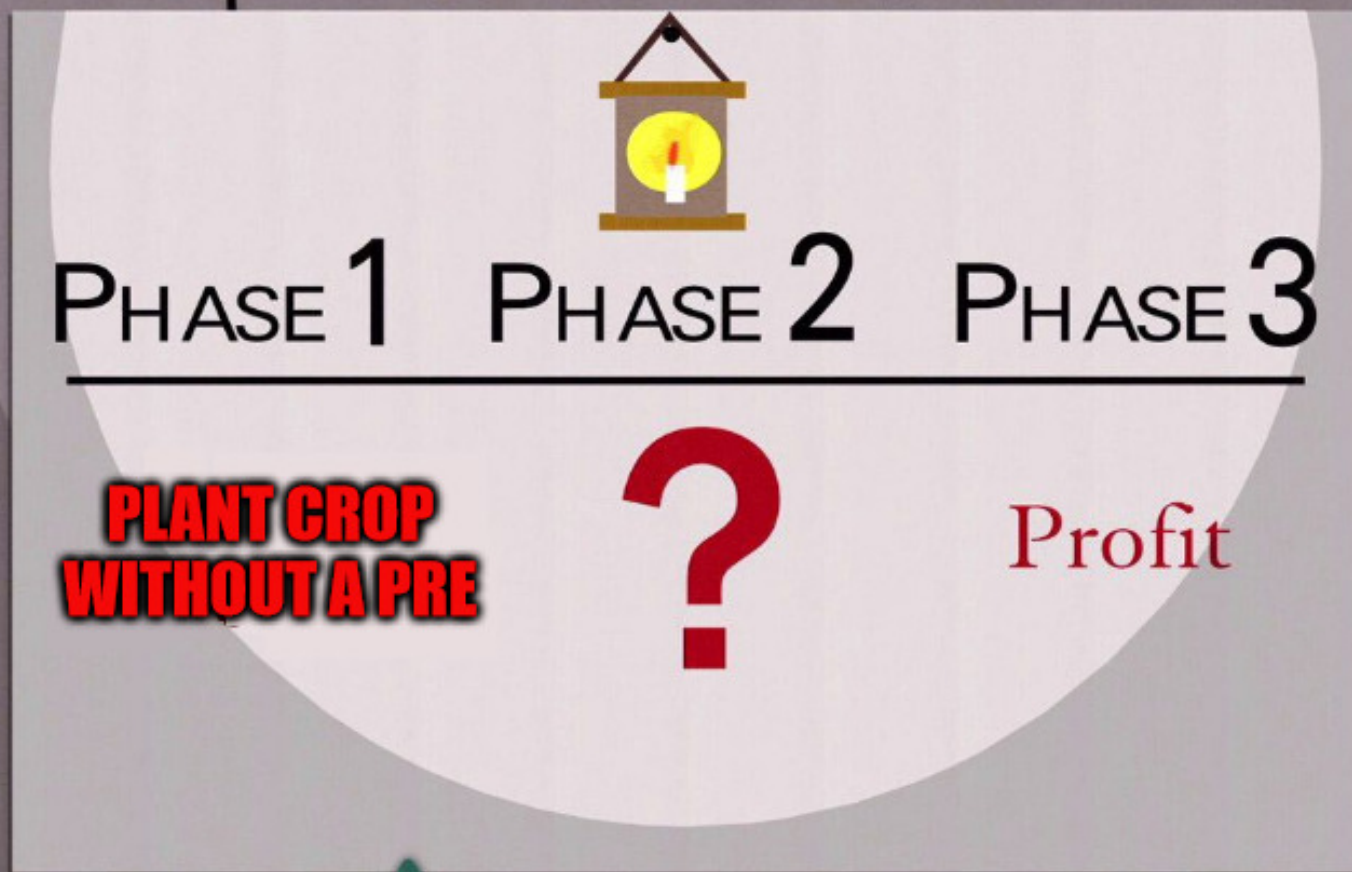


# Waterhemp Issues in 2019

- Delayed planting (many skipped a PRE)
- Saturated fields
- Drowned out areas
- Prevent Plant



# 2019 Waterhemp Management Plan









































# 2019 July Monsoon Season

- Heavy rain on July 8 and 9
- Many fields flooded
- Bare ground afterwards













July 30 2019



August 22 2019















**Questions?**